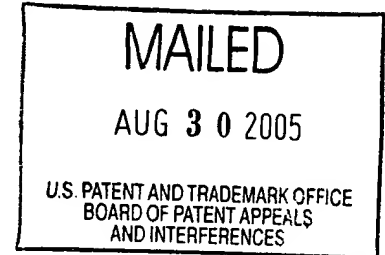


The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte IVO RAAIJMAKERS,
RAVINDER AGGARWAL,
and JAMES KUSBEL



Appeal No. 2005-1554
Application No. 09/658,784

HEARD: August 10, 2004

Before WALTZ, KRATZ, and PAWLIKOWSKI, Administrative Patent Judges.
KRATZ, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 61, 67 and 103-116.

BACKGROUND

Appellants' invention relates to a substrate processing system including a load lock chamber, a substrate handling chamber and at least one process chamber. The load lock chamber includes a lower portion having a width less than an upper portion. A first port is located in the upper portion of the load lock with the load lock selectively communicating with the

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substrate handling chamber through that first port. A further understanding of the invention can be derived from a reading of exemplary claims 61 and 67, which are reproduced below.

61. A system for processing substrates, comprising a load lock chamber including a lower portion having a first inner width and an upper portion having a narrower second inner width, the chamber including a first port and a second port, each of the ports sized to pass substrates therethrough, the load lock chamber further comprising a moveable platform configured to support at least one substrate thereon and sized to have a width less than the first inner width and greater than the second inner width to enable selectively sealing the upper portion with the at least one substrate supported thereon;

a substrate handling chamber selectively communicating with the load lock chamber through the first port; and

at least one process chamber selectively communicating with the substrate handling chamber, wherein the first port is located in the upper portion.

67. A system for processing substrates, comprising a load lock chamber including a lower portion having a first inner width and an upper portion attached to the lower portion and having a narrower second inner width, the chamber including a first port and a second port, each of the ports sized to pass substrates therethrough, the load lock chamber further comprising a moveable platform configured to support at least one substrate thereon and sized to have a width less than the first inner width and greater than the second inner width to enable selectively sealing the upper portion with the at least one substrate thereon;

an auxiliary processing system selectively communicating with an opening in the upper portion;

a substrate handling chamber selectively communicating with the load lock chamber through the first port; and

at least one process chamber selectively communicating with the substrate handling chamber, wherein said first port opens into said upper portion and said second port opens into said lower portion.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Fujiura et al. (Fujiura)	5,071,460	Dec. 10, 1991
Saeki	5,223,001	Jun. 29, 1993
Tanaka et al. (Tanaka)	6,234,107	May 22, 2001
		(filed Jan. 22, 1999)
Nering	6,280,134	Aug. 28, 2001
		(filed Jun. 17, 1997)
Kondo et al. (Kondo ¹)	JP 6-275703	Sep. 30, 1994

Claims 61, 67, 103 and 110 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Tanaka. Claims 107-109 and 113-116 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Tanaka in view of Nering. Claims 104, 105, 111 and 112 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Tanaka in view of Kondo. Claim 106 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Tanaka in view of Saeki and Fujiura.

We refer to the brief, reply brief, the answer and the final rejection for a complete exposition of the opposing viewpoints

¹ Our references to Kondo in this decision are to the English language translation of the Japanese Kokai patent application publication by the Ralph McElroy Translation Company that is of record.

OPINION

Having considered the entire record of this application, including the arguments advanced by both the examiner and appellants in support of their respective positions, we find ourselves in agreement with appellants' position in that the examiner has not met the burden to show, prima facie: (1) that the applied prior art anticipates the subject matter of claims 61, 67, 103 and 110; or (2) that the applied prior art renders the subject matter of the other appealed claims obvious within the meaning of 35 U.S.C. § 103(a). Accordingly, we reverse the rejections advanced by the examiner.

§ 102 Rejection

To anticipate a claim, a prior art reference must disclose every limitation of the claimed invention, either explicitly or inherently. In re Schreiber, 128 F.3d 1473, 1477, 44 USPQ2d 1429, 1431 (Fed. Cir. 1997).

In the case before us the examiner maintains that Tanaka anticipate claims 61, 67, 103 and 110. In making this determination, the examiner (final rejection, page 2) refers to a first port (14'), a substrate handling chamber (16, Figures 1 and 6) that allegedly selectively communicates with a load lock chamber (12, Figure 1) through that first port and at least one

process chamber (1-3, Figure 1 and column 3, lines 20-38) of Tanaka, as allegedly corresponding to like components recited in the system of independent appealed claims 61 and 67.

All of the rejected claims require that a substrate handling chamber communicates with a load lock chamber through a first port that is located in or opens into an upper portion of the load lock chamber, which upper portion has a narrower width than a lower portion of the load lock chamber.

Appellants argue (brief, pages 5-7) that the port 14' of Tanaka, identified by the examiner as corresponding to appellants' claimed first port, selectively communicates with a wafer chamber 16, not a substrate handling chamber that is in selective communication with at least one process chamber. Rather, the port 10 of Tanaka selectively communicates via chamber 8 with a process chamber (1, 2 or 3) as illustrated in Figure 1 of Tanaka. However, the port 10 of Tanaka is located in or opens into a lower portion of the load lock chamber of Tanaka, as illustrated in Figures 6 and 7.

In response, the examiner (answer, pages 4-7) takes the position that appellants position is confusing and that the process chambers (1-3, Figure 1) of Tanaka selectively communicate with the substrate handling chamber (16, Figures 1

In response, the examiner (answer, pages 4-7) takes the position that appellants position is confusing and that the process chambers (1-3, Figure 1) of Tanaka selectively communicate with the substrate handling chamber (16, Figures 1 and 6) of Tanaka via the plural ports (14, 15, 10, 11, 5-7; Figure 1).

On this record, we agree with appellants' position. In this regard, as further explained by appellants in the reply brief, both doors of a load lock are not open at the same time so as to allow chambers on opposite sides of the load lock to be in open communication (selective communication) with each other. In this regard, the broadest reasonable interpretation of appellants' claim language requiring selective communication of the process chamber with the substrate handling chamber would have been reasonably understood by one of ordinary skill in the art as requiring that those chambers be selectively open to each other on the same side of the load lock. Chambers on opposite sides of the load lock are not in selective communication with each other, as that term is employed in the claims before us. The claimed selective communication arrangement is not met by the arrangement of Tanaka. As explained by appellants, the structural

arrangement of Tanaka is inverted as compared to the claimed arrangement.

On this record, we will not sustain the examiner's anticipation rejection.

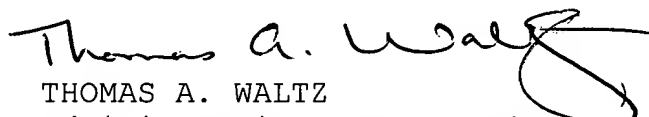
§ 103(a) Rejection

Concerning the examiner's separate § 103(a) rejections of several of the dependent claims, the examiner does not offer any further analysis of the contested load lock and process chamber arrangement explaining how the various secondary references relied upon in the separate rejections in combination with Tanaka would have rendered the claimed system, including the load lock chamber position relative to the process chamber(s) obvious to one of ordinary skill in the art at the time of the invention. It follows that we shall also reverse the examiner's obviousness rejections, on this record.


CONCLUSION

The decision of the examiner to reject claims 61, 67, 103 and 110 under 35 U.S.C. § 102(e) as being anticipated by Tanaka; to reject claims 107-109 and 113-116 under 35 U.S.C. § 103(a) as being unpatentable over Tanaka in view of Nering; to reject claims 104, 105, 111 and 112 under 35 U.S.C. § 103(a) as being unpatentable over Tanaka in view of Kondo; and to reject claim 106 under 35 U.S.C. § 103(a) as being unpatentable over Tanaka in view of Saeki and Fujiura is reversed.

REVERSED


THOMAS A. WALTZ
Administrative Patent Judge


PETER F. KRATZ
Administrative Patent Judge


BEVERLY A. PAWLIKOWSKI
Administrative Patent Judge

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